being placed between adjacent projections 46, reduce the contact area between the bottom of the main casing 30 and the radiation plate 33, thereby reducing the amount of heat transfer from the radiation plate 33 to the main casing 30.

In the Claims

Please cancel Claims ~~2~~, ~~5~~, and ~~6~~, rewrite Claims 1 and 4, and add new Claims 7-16 as follows:

1. (Twice Amended) A waveguide for a microwave device, comprising:

a frame housing a high-frequency circuit therein, the frame comprising a main casing housing a first circuit board and a sub-casing housing a second circuit board; and

a lid attached to a sidewall of the frame,

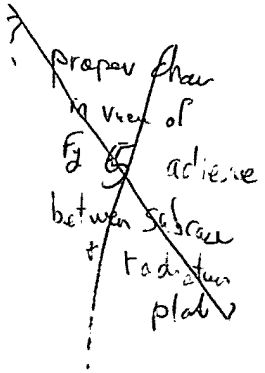
wherein the main casing has a cut-out formed in the sidewall to which the lid is attached, the sub-casing arranged inside the main casing has a sidewall which is exposed at the cut-out, both the main casing and the sub-casing have waveguide grooves formed in the respective sidewalls, the waveguide grooves extend along a mating surface between the frame and the lid, the lid has a flat surface to cover the waveguide grooves, and the second circuit board has a probe provided thereon, the probe protruding into the waveguide groove of the sub-casing.

4. (Twice Amended) The waveguide according to Claim 1, wherein the sub-casing is arranged inside four sidewalls of the main casing and the main casing has a through-hole, through which the probe passes, formed in the sidewall to which the lid is attached.

? Fig 12 embodiment can it dep from claim 1 which requires main casing having 'cut out' in sidewall & both main case sidewalls & sub-case has groove

7. (New) The waveguide according to Claim 1, further comprising through-holes provided in the second circuit board, the through-holes having sufficient size to permit bare semiconductor chips to be inserted therein.

8. (New) The waveguide according to Claim 7, wherein the bare semiconductor chips are bonded to an inner bottom surface of the sub-casing through conductive adhesive and are connected to a conductive pattern on the second circuit board through wire bonds.



9. (New) The waveguide according to Claim 1, further comprising a radiation plate on which the sub-casing is disposed, the radiation plate sized to fit inside the cut-out.

10. (New) The waveguide according to Claim 9, further comprising an adhesive radiation sheet interposed between the sub-casing and the radiation plate, radiation sheet smoothing fine irregularities on a contact surface between the sub-casing and the radiation plate.

11. (New) The waveguide according to Claim 1, wherein the main casing has an opening whose end defines the cut-out, the sub-casing has a protrusion disposed in the opening such that the protrusion does not contact the main casing.

12. (New) The waveguide according to Claim 9, wherein the main casing has an opening whose end defines the cut-out, the sub-casing has a protrusion disposed in the opening such that the protrusion does not contact the main casing.

13. (New) The waveguide according to Claim 12, wherein the main casing has alternating depressions and projections formed on both sides of the opening, the projections serve as contact surfaces between the main casing and the radiation plate so as to join the main casing and the radiation plate and the depressions reduce the contact area between the main casing and the radiation plate.

14. (New) The waveguide according to Claim 1, wherein the sub-casing is supported by a support that is connected to the main casing through alternating depressions and projections formed on one of the main casing and support, the projections serve as contact surfaces to join the main casing and the support and the depressions reduce the contact area between the main casing and the support.

15. (New) The waveguide according to Claim 1, wherein the lid has a hole that connects the waveguide grooves in the main and sub-casings with an external element to receive signals propagating through the waveguide grooves and hole.

16. (New) The waveguide according to Claim 1, wherein the second circuit board is electromagnetically shielded on all sides from the first circuit board.